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CLAIMS

1.   A method of operating a transmitter to transmit a data block to a plurality of recipients selected from a plurality of receivers connected to said transmitter via a
5   multicast-capable network, said method comprising:

finding a multicast address to which said data block is to be sent, said multicast address being suitable for use in said multicast-capable network;

10   addressing said data block to said multicast address; and

transmitting said data block over said network;

said method being characterised in that:
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said transmitter has access to one or more directories storing:

a) a plurality of lists of receiver identifiers; and

20   b) for each of said lists, a multicast-address suitable for use in said multicast-capable network; and

said multicast address finding step comprises:

25   a) obtaining a list of receiver identifiers, said list corresponding to the set of recipients to which said data block is to be sent; and

b) examining said one or more directories to find a multicast address corresponding to the list of receiver identifiers obtained in step a).
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2.   A method according to claim 1 wherein:
said obtaining step comprises:

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a) receiving one or more indications that an earlier data block addressed to a selected set of receivers was not successfully received by one or more of said set of receivers; and

b) analysing said indications to generate a list of receiver identifiers, each receiver

5   identifier in said list identifying a recipient that did not successfully receive said earlier data block.

3.   A method according to claim 1 wherein:

said obtaining step involves:

10 a) determining that a general data block is to be sent to recipients included in one or more of a selected plurality of said lists; and

b) unifying said selected plurality of lists to find a unified list of receiver identifiers.

4.   A method according to claim 1 wherein said transmitter further has access to

15 type data listing data block type identifiers, and a list of recipient identifiers for each data block type identifier, wherein said obtaining step involves:

a) finding a type identifier associated with said data block; and

b) examining said type data to find a list of receiver identifiers associated with said type identifier.

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5.   A method according to claim 4 wherein said type identifier is a subject-matter identifier indicating the subject-matter to which the data in the data block relates.

6. *A* A method according to claim 4 ~~or 5~~ wherein said type identifier finding step

25 involves extracting a type identifier from a data block received at said transmitter.

7.   A method according to claim 1 wherein said transmitter has access to a plurality of group directories for respective groups of receivers.

30 8. *A* A method according to ~~any preceding~~ claim wherein the format of said multicast address is in accordance with the Internet Protocol suite.

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9.   A transmitter operable to transmit data blocks to a set of recipient computers selected from a plurality of receiver computers connectable to said transmitter computer via a multicast-capable network, said apparatus comprising:

5   an output connectable to said network;

one or more processors;

a program store storing instructions executable by said one or more processors to
10   transmit the data block via said output over said network;

said set of instructions being executable to transmit the data block by:

finding a multicast address to which said data block is to be sent, said multicast
15   address being suitable for use in said multicast-capable network;

addressing said data block to said multicast address; and

transmitting said data block over said network;
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said transmitter being characterised by:

having access to a directory store storing:

25   a) list data representing lists of receiver identifiers; and

b) for each of said lists, a multicast address suitable for use in said multicast-capable network; and

30   said set of instructions being executable to find said multicast address by:

a) obtaining a list of receiver identifiers, said list corresponding to the set of recipients to which said data block is to be sent; and

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b) examining said one or more directories to find a multicast address corresponding to the list of receiver identifiers obtained in step a).

10.   A transmitter according to claim 9 wherein:

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said transmitter further has access to type data listing data block type identifiers, and a list of recipient identifiers for each data block type identifier; and
said set of instructions being further executable to obtain said list of receiver identifiers by:

10   a) finding a type identifier associated with said data block; and
b) examining said type data to find a list of receiver identifiers associated with said type identifier.

15   11.   A program storage device readable by a processing apparatus, said device embodying a program of instructions executable by the processing apparatus to perform method steps for transmitting a data block over a network to a set of recipients selected from a plurality of receivers, said method steps comprising steps according to
claim 1
any one of claims 1 to 8.

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12.   A computer program comprising computer program code adapted to perform
claim 1
the method steps of any one of claims 1 to 8 when said program is executed by a computer.

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